Attorney Docket No. LVIP:112US U.S. Patent Application No. 10/709,871

Reply to Office Action of August 10, 2006

Date: January 10, 2007

Amendments to the Specification

Please replace paragraph [0017-0020] with the following amended paragraphs:

[0017] To illustrate the problem underlying what is sought to be patented, FIG. 1 schematically depicts a stereomicroscope 10 according to the existing art. This stereomicroscope 10 is mounted at a fixed angle α with respect to vertical 12. This configuration results in optimum contrast for alignment of knife 14 when a relief angle of 10 degrees is maintained for knife 14. This arrangement has the advantage that the knife and specimen can be adjusted very accurately. Incident-light illumination system 16 is geometrically adapted in such a way that with a flat water level, i.e. a flat water surface 18, the surface of the water reflects. For applications that require a lowered water surface 19 in knife pan 20, this fixed geometric coordination is unfavorable, since a lowered water surface 19 is curved. The reflection of the water surface close to knife blade [22] 21 is lost, so that the cutting and alignment operations can no longer be observed adequately with relief angles not equal to 10° .

[0018] To compensate for this disadvantage, microscopes are already known that are pivotable along arc B so that angle α can be variably adjusted. This adjustment capability results in a geometric adaptation to the particular water levels required in knife pan 20. It must be ensured in this context, however, that the pivoting motion occurs about an axis whose direction is defined by knife edge [22] 21. A pivotable stereomicroscope can thus be displaced in accordance with the curved water surface in such a way that a reflection of light source 16 is once again achieved.

[0019] FIG. 2 now shows, in a side view, an ultramicrotome 24 according to the present invention having a pivotable stereomicroscope [10] 20. The pivoting motion can be implemented using a rotary knob 26, the pivoting motion of stereomicroscope 10 proceeding about an axis whose direction is defined by knife edge 22.

3

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FIG. 3 depicts a portion of ultramicrotome 24 in an enlarged partial depiction. In the present case, pivoting device 28 has a pinion 30. A rotation of pinion 30, which runs in a toothed rack 32, causes a motion of toothed rack 32, which is curved. As a result, segment 34 is displaced within its <u>curved rigid</u> guide 33. A focus drive 36 is provided on segment 34. Stereomicroscope 10 and an illumination device 38 for illuminating working area 40, in which knife [14] 15 is also located, are provided in turn on focus drive 36.

Please replace paragraph [0022] with the following amended paragraph:

One possible embodiment of a detent element 41 is shown in FIG. 5. Here a ball 42 is pushed by means of a spring 44 into a groove 46. As soon as ball 42 engages into groove 46, a defined detent position has been assumed. The detent element can be arranged on the curved rigid guide 33, and the groove conversely on the movable segment. Upon actuation of knob 26, engagement is clearly perceptible by the user. Advantageously, however, in addition to all the detent positions, all other desired non-detent-stopped positions of the pivoting motion can also be established and retained.

Please replace paragraph [0026] with the following amended paragraph:

Instead of or in addition to a detent element, a scale can also be mounted on rotary knob 26, as seen in Fig. 4. The provision of this scale allows a specific angular position to be arrived at and recorded reproducibly. For applications in which the user has the ability also to keep the scale in view, it is thereby possible to create a very simple and effective device that allows the stereomicroscope angle to be set accurately and reproducibly.

4